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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/032,622	10/25/2001	Nurettin Burcak Beser	JNP-0198 6016		
7590 08/09/2006			EXAMINER		
JUNIPER NETWORKS, INC			CHO, HONG SOL		
1194 N. MATH	ILDA				
SUNNYVALE,	CA 94089	ART UNIT	PAPER NUMBER		
			2616		

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

					2		
		Application No.		Applicant(s)			
Office Action Summary		10/032,622		BESER, NURETTI	N BURCAK		
		Examiner		Art Unit			
		Hong Cho		2616			
The MAILING DATE of this Period for Reply	communication app	pears on the cove	r sheet with the c	orrespondence add	dress		
A SHORTENED STATUTORY PE WHICHEVER IS LONGER, FROM - Extensions of time may be available under the after SIX (6) MONTHS from the mailing date If NO period for reply is specified above, the r - Failure to reply within the set or extended per Any reply received by the Office later than thr earned patent term adjustment. See 37 CFR	A THE MAILING DA e provisions of 37 CFR 1.13 of this communication. maximum statutory period w iod for reply will, by statute, ee months after the mailing	ATE OF THIS CO 36(a). In no event, how vill apply and will expire , cause the application to	OMMUNICATION vever, may a reply be tim SIX (6) MONTHS from to become ABANDONE	l. ely filed the mailing date of this co D (35 U.S.C. § 133).			
Status							
 Responsive to communication This action is FINAL. Since this application is in colored in accordance with the 	2b)⊠ This ondition for allowar	action is non-fin	rmal matters, pro		merits is		
Disposition of Claims	·	,					
4)	is/are withdrav ed. <u>48-57</u> is/are rejecte ted to.	vn from consider	ration.				
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9) The specification is objected 10) The drawing(s) filed on Applicant may not request that Replacement drawing sheet(s) 11) The oath or declaration is ob	is/are: a) acce any objection to the c including the correcti	epted or b) ob drawing(s) be held ion is required if th	I in abeyance. See ne drawing(s) is obj	: 37 CFR 1.85(a). ected to. See 37 CF	, ,		
Priority under 35 U.S.C. § 119							
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 							
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing 3) Information Disclosure Statement(s) (PT Paper No(s)/Mail Date		5)	Interview Summary Paper No(s)/Mail Da Notice of Informal Pa Other:		J-152)		

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DETAILED ACTION

Response to Amendment

1. This office action is in response to the RCE filed on 7/5/2006. Claims 1-10, 12-38, 40 and 47 were canceled. Claims 11, 39, 41-46 and 48-57 are pending in the instant application.

Claim Rejections - 35 USC § 102

- 2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:
 - (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by Williams et al (US 20020159513), hereinafter referred to as Williams.

Re claim 11, Williams discloses receiving bandwidth requests from multiple cable modems (figure 8, element 802), assigning sub-channels associated with different bandwidth and encoding formats (determining a mini-slot size based on the modulation and symbol rate of the virtual upstream channel to which a respective cable modem is

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assigned, figure 8, element 806; paragraph [0038], lines 22-23) and scheduling transmission on a physical channel from cable modems associated with each of bandwidth requests based on a respective mini-slot size (paragraph [0035], lines 34-35). Williams discloses segregating the physical upstream channel into multiple virtual upstream channels (paragraph [0035], lines 7-9) associated with a different modulation and symbol rate (paragraph [0035], lines 9-12), grouping cable modems (users) into a plurality of groups (figure 1, elements 110 and 112) and assigning a different one of the multiple virtual upstream channels to each of the plurality of groups for upstream transmission (paragraph [0038], lines 34-35).

Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 39, 41-46 and 48-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Nose (US 6643295).

Re claims 39, 46 and 53, Williams discloses grouping cable modems (users) into a plurality of groups (figure 1, elements 110 and 112), but fails to disclose that cable modems are grouped based on a latency associated with each of the plurality of groups.

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Nose discloses measuring a transmission delay between the central control unit (CMTS) and each terminal (cable modem) (column 4, lines 55-57). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cable system of Williams to separate cable modems into groups based on a delay between the CMTS and the cable modem, as suggested by Nose, so that transmission power levels would be adjusted to accommodate geographically located cable modems. Williams discloses assigning sub-channels with different data rates to cable modems (assigning a different virtual upstream channels associated with a different modulation, symbol rate or preamble to each of the plurality of groups, (paragraph [0035], lines 9-12).

Re claims 41, 48 and 57, Williams discloses identifying modems operating at different data rate (paragraph [0034], lines 15-16) and assigning bandwidth to the cable modems (paragraph [0034], line 11), but fails to disclose allowing a slower cable modems to transmit data proportionately more frequently tan faster modems. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cable system of Williams to assign more frequently unused bandwidth of a given upstream channel to a modem operating at slower data rate such that the bandwidth would not be wasted (paragraph [0034], lines 15-20).

Re claims 42 and 49, Williams discloses modems transmitting data in separate channels (sending a message, that allocates upstream bandwidth, on each of the different virtual upstream channels, paragraph [0038], lines 9-11).

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Re claims 43 and 50, Williams discloses each message pertaining to cable modems of a group of the plurality of groups assigned to a respective virtual upstream channel (paragraph [0038], lines 11-14).

Re claims 44 and 51, Williams discloses a plurality of sub-channels of differing size (each virtual upstream channel is associated with a different mini-slot size, paragraph [0039], lines 6-8).

Re claims 45, 52 and 56, Williams discloses sub-channels associated with different bandwidth and encoding formats (a different virtual upstream channel associated with a different modulation and symbol rate, (paragraph [0035], lines 9-12). Williams discloses receiving bandwidth requests from multiple cable modems (figure 8, element 802), determining a mini-slot size based on the modulation and symbol rate of the virtual upstream channel to which a respective cable modem is assigned (figure 8, element 806; paragraph [0038], lines 22-24) and scheduling transmission on a physical channel from cable modems associated with each of bandwidth requests based on a respective mini-slot size (paragraph [0038], lines 34-35).

Re claim 54, Williams discloses assigning sub-channels with different data rates to cable modems (assigning a different virtual upstream channels associated with a different modulation, symbol rate or preamble to each of the plurality of groups, (paragraph [0035], lines 9-12).

Re claim 55, Williams discloses modems transmitting data in separate channels (sending a message, that allocates upstream bandwidth, on each of the different virtual upstream channels, paragraph [0038], lines 9-11) and each message pertaining to cable

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modems of a group of the plurality of groups assigned to a respective virtual upstream channel (paragraph [0038], lines 11-14).

Response to Arguments

6. Applicant's arguments with respect to claims 11, 39, 41-46 and 48-52 have been considered but are most in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087.

The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hong Cho Patent Examiner

8/3/06

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